Serial Number: 09 663914 Filing Date: September 18, 2000 Title: BLEACHED BRAN AND BRAN PRODUCTS AND METHODS OF PREPARATION

# AMENDMENTS TO THE CLAIMS

Please amend the claims as follows:

Claims 1-20 (Cancelled).

- 21. (Currently Amended) A bleached bran product comprising bleached bran derived from a cereal grain, the bleached bran product produced by treating bran with an excess amount of a hydrogen peroxide solution and an aqueous alkaline solution in a wet bleaching process, the bleached bran product having a water absorption value higher than native bran and having an antioxidant activity at least 15 to 35% higher than native bran, the bleached bran product and suitable for admixing with whole wheat flour to produce white whole wheat flour having an L value on the Hunter scale of at least about 82.
- 22. (Previously Amended) The product of claim 21 wherein about five (5)% of the bleached bran product, by weight, is added to the whole wheat flour.
- 23. (Original) The product of claim 21 having an L value of between about 82 and 93.
- 24. (Currently Amended) The product of claim 21 having a wherein the water absorption value is up to about six times higher than native bran.
- 25. (Original) The product of claim 21 wherein native flavor components are reduced or deactivated.

Claim 26 (Cancelled).

27. (Previously Amended) The product of claim 21 wherein the antioxidant activity is increased due to increased availability of ferulic acid.

Claims 28-30 (Cancelled).

Serial Number: 09-663914
Filing Date: September 18, 2000
Fitte: BLEACHED BRAN AND BRAN PRODUCTS AND METHODS OF PREPARATION

- 31. (Currently Amended) A whole wheat flour comprising a bleached bran product produced by treating bran derived from a cereal grain with an excess amount of a hydrogen peroxide solution and an aqueous alkaline solution in a wet bleaching process, the bleached bran product having a water absorption value higher than native bran and having an antioxidant activity at least 15 to 35% higher than native bran, the whole wheat flour having an L value on the Hunter scale of at least about 82 and a dietary fiber content of about 10 to 12%.
- 32. (Original) The whole wheat flour of claim 31 substantially free of hydrogen peroxide.
- 33. (Original) The whole wheat flour of claim 32 prepared from soft white wheat or hard white wheat.
- 34. (Original) The whole wheat flour of claim 33 prepared from light bran.
- 35. (Original) The whole wheat flour of claim 33 having a pH of about 6.3 to 6.7.
- 36. (Original) A finished baked good prepared from the whole wheat flour of claim 31.
- 37. (Original) The whole wheat flour of claim 31 admixed with sugar, salt, and leavening.
- 38. (Currently Amended) A bleached bran product comprising bleached bran derived from a cereal grain, the bleached bran product produced by treating bran with an excess amount of a hydrogen peroxide solution and an aqueous alkaline solution in a wet bleaching process, the bleached bran product having a water absorption value higher than native bran and having an antioxidant activity at least 15 to 35% higher than native bran, the bleached bran product and suitable for use as an additive in foods.
- 39. (Previously Amended) The bleached bran product of claim 38 wherein the product is added to foods selected from the group consisting of dry mixes, ready-to-eat cereals and soy.

Serial Number: 09-663914 Filing Date September 18, 2000 Title: BI FACHED BRAN AND BRAN PRODUCTS AND METHODS OF PREPARATION

- 40. (Currently Amended) A refrigerated uncooked or bakeable dough product comprising bleached bran derived from a cereal grain, the bleached bran product produced by treating bran with an excess amount of a hydrogen peroxide solution and an aqueous alkaline solution in a wet bleaching process, the bleached bran product having a water absorption value higher than native bran and having an antioxidant activity at least 15 to 35% higher than native bran, the dough product and suitable for use as an additive in foods.
- 41. (Currently Amended) A ready-to-eat cereal comprising bleached bran, the bleached bran produced by treating bran with an excess amount of a hydrogen peroxide solution and an aqueous alkaline solution in a wet bleaching process, the bleached bran product having a water absorption value higher than native bran and having an antioxidant activity at least 15 to 35% higher than native bran.
- 42. (Currently Amended) A cooked cereal dough comprising bleached bran, the bleached bran produced by treating bran with an excess amount of a hydrogen peroxide solution and an aqueous alkaline solution in a wet bleaching process, the bleached bran product having a water absorption value higher than native bran and having an antioxidant activity at least 15 to 35% higher than native bran.
- 43. (Previously Added) The product of claim 21 wherein the hydrogen peroxide solution has a pH of about 6 to 7 and the aqueous alkaline solution is added in an amount sufficient to raise the pH of the native bran and hydrogen peroxide solution to about 9 to 9.5.
- 44. (Previously Added) The product of claim 43 wherein the hydrogen peroxide solution is an aqueous solution having a concentration of between about 6 and 40%, further wherein the hydrogen peroxide solution is added in amounts of about 1 to 20 parts of hydrogen peroxide solution to about 100 parts of native bran.

Serial Number: 09-663914 Filing Date: September 18, 2000 Title: BLFACHED BRAN AND BRAN PRODUCTS AND METHODS OF PREPARATION

- 45. (Previously Added) The product of claim 44 wherein the hydrogen peroxide solution and alkaline solution are heated together with the bran at a temperature of about 80 to 90 °C for about 20 to 60 minutes.
- 46. (Previously Added) The product of claim 44 wherein the hydrogen peroxide solution and alkaline solution are heated together with the bran under a pressure of about 103.4 to 138 kPA (15 to 20 psi) and a temperature of about 120 to 130 °C for about one (1) to five (5) minutes.
- 47. (Previously Added) The product of claim 44 wherein the cereal grain is selected from the group consisting of wheat, rice, barley, corn (maize), oats, triticale, amaranth, soybeans and mixtures thereof.
- 48. (Previously Added) The product of claim 47 wherein the cereal grain is red wheat or white wheat.
- 49. (Previously Added) The product of claim 48 wherein the cereal grain is a soft winter white wheat that is milled to produce a light bran.
- 50. (Previously Added) The product of claim 21 wherein the bleached bran product is comprised of particles, each particle having a particle size of at least about 100 microns.
- (Currently Amended) A bleached bran product comprising bleached bran derived from a cereal grain, the bleached bran product produced by first treating bran with a chelating agent to produce reduced transition metal content bran, the reduced transition metal content bran further treated with an excess amount of a hydrogen peroxide solution and an aqueous alkaline solution in a wet bleaching process, the bleached bran product having a water absorption value higher than native bran and having an antioxidant activity at least 15 to 35% higher than native bran.

Serial Number: 09 663914

Filing Date: September 18, 2000

Title: BUEACHED BRAN AND BRAN PRODUCTS AND METHODS OF PREPARATION

52. (Previously Added) The product of claim 51 wherein the chelating agent is selected from the group consisting of orthophosphate, metaphosphate, pyrophosphate, polyphosphate, calcium EDTA and sodium EDTA.

- 53. (Previously Added) The product of claim 52 wherein the chelating agent is calcium EDTA or sodium EDTA in a concentration of between about 0.02 and 0.1%.
- 54. (Previously Added) The product of claim 51 wherein the reduced transition metal content bran is blanched to inactivate catalase and peroxidase enzymatic systems.
- 55. (Previously Added) The product of claim 54 wherein the reduced transition metal content bran is blanched at a temperature of between about 75 to 85 °C for about three (3) to ten (10) minutes, further wherein the residual enzyme activity after blanching is below about 10 CIU/g bran.
- 56. (Previously Amended) The product of claim 51 wherein the bleached bran product is treated with catalase to remove residual hydrogen peroxide.
- 57. (Previously Added) The product of claim 56 wherein between about 0.1 and 0.4% of catalase, by weight, is added to the bleached bran product at a temperature of about 60 °C, further wherein the hydrogen peroxide concentration is reduced to less than about five (5) PPM following catalase treatment.
- 58. (Currently Amended) A bleached bran product comprising bran derived from a cereal grain, the bran bleached in a wet bleaching process with a combination of hydrogen peroxide and ozone or peracetic acid in the presence of heat to produce the bleached bran product.

Claim 59 (Cancelled).

Serial Number: 09 663914

Filing Date: September 18, 2000

Title\_BLEACHED BRAN AND BRAN PRODUCTS AND METHODS OF PREPARATION

- (Currently Amended) A bleached bran product comprising bleached bran derived from a 60. cereal grain, the bleached bran product produced by treating bran with a hydrogen peroxide solution and an aqueous alkaline solution in a wet bleaching process, followed by an ozone treatment, the bleached bran product having an antioxidant activity at least 15 to 35% higher than native bran and suitable for admixing with whole wheat flour to produce white whole wheat flour having an L value on the Hunter scale of at least about 82.
- (Previously Added) The bleached bran product of claim 60 wherein the bran is treated 61. with about 0.1 to 2% ozone, by weight, at a pH of about 4 to 5.
- (Previously Added) The bleached bran product of claim 61 wherein the reaction of ozone 62. and bran is in the range of about 90 to 95%.
- (Previously Added) The bleached bran product of claim 21 wherein bitter flavor 63. components present in the native bran are reduced.